

REMARKS

Claims 1-26 are currently pending in the present application. No new matter has been added by way of the present submission. For instance claim 1 has been amended to further clarify the present composition. Claims 12-22 have been amended to clarify the nature of the recited "content" rather than ratio. Claims 1, 24 and 25 have been amended to recite "A" at the beginning of the claim. Lastly, claim 25 has been amended to delete the recitation of "fungicidal" and thus provide proper antecedent basis with respect to claim 1. Lastly, new claim 26 finds support in claim 1. Therefore, no new matter has been added.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues under 35 U.S.C. § 112

The Examiner has rejected claims 12-22 and 25 under 35 U.S.C. § 112, second paragraph for the reasons cited on page 2 of the outstanding Office Action. Applicants respectfully traverse these rejections.

First, the Examiner has rejected claims 12-22 asserting that the claims fail to address the second component or compound beside metalaxyl-M to compare as a ratio. Applicants traverse this rejection and submit that claims 12-22 have been amended to clarify that the "content" of the recited ingredient is intended as a weight percentage. The recitation of "ratio" has been removed from these claims.

Second, the Examiner asserts that the limitation "fungicidal composition" in claim 25 fails to have proper antecedent basis in claim 1. Applicants traverse and submit that "fungicidal" has been removed from claim 25. Thus, this rejection is moot.

In view of the above, Applicants submit that the present claims fully satisfy the requirements of 35 U.S.C. § 112, second paragraph. The Examiner is thus respectfully requested to withdraw these rejections.

Issues under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-5, 7, 9-10, 12-20 and 23-25 under 35 U.S.C. § 102(b) as being anticipated by Vogt et al. (U.S. Patent 6,274,570). Applicants respectfully traverse this rejection.

The present invention relates to microemulsion composition comprising (i) metalaxyl-M as active ingredient; (ii) emulsifier which essentially comprises polyoxylkylene tristyrylphenyl ether and further comprises one or more selected from the group consisting of calcium salt of alkylbenzene sulfonic acid and sodium salt dialkyl succinic acid; (iii) aqueous solvent(s) selected from the group consisting of lower alcohol, glycol, glycol ether, lactone, pyrrolidone, amine and amide; and (iv) water.

One aspect of the present invention relates to the use of the aqueous solvent and water to produce an environment-friendly and stable microemulsion.

In contrast Vogt discloses a pesticidal composition comprising (i) pesticide comprising metalaxyl; (ii) surfactant comprising a castor oil ethoxylate, isotridecanol ethoxylate and tristrenephenol-ethoxylate; (iii) water immiscible or water miscible organic solvent (see column 1, line 61 to column 3, line 13 of Vogt).

Vogt describes that the composition is substantially free of water, i.e. the amount of water is less than 0.5% and teach that even small amounts are removed, for example, in a separator (see column 1, line 63; column 2, lines 34-38). In other words, the composition taught by Vogt is an emulsion concentrate composition comprising a large quantity of water insoluble materials.

The mention of water in column 4, lines 58-62 of Vogt merely relates to the dilution of the composition with water just before being applied to the plant, animal or locus as desired. The Examples 1 to 8 of Vogt contain water insoluble organic solvents, but do not contain water (see columns 5 and 6). Therefore, Vogt teaches away from the present invention which uses water.

Therefore, the constitution of the present invention (i.e., using water) is clearly different from that of Vogt and therefore, Applicants submit that the present invention has novelty compared to Vogt.

Issues under 35 U.S.C. § 103(a)

The Examiner has rejected claims 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Vogt et al. (U.S. Patent 6,274, 570). Applicants respectfully traverse this rejection.

The Examiner has pointed out that the amount of water being added to the composition cannot be regarded as a difference in the absence of unexpected results.

As explained above, Vogt teaches away from the present invention since Vogt describes that the composition is substantially free of water, and therefore, a skilled artisan would certainly not be motivated to conceive the present invention from the teachings of Vogt.

Also, the use of water in the present invention does provide unexpectedly superior results. The present inventors tested the storage stability of the microemulsion composition of the present invention under a wide range of temperature conditions (-10 to 54° C) for 2 weeks. As a result, the microemulsion of the present invention was not destroyed and maintained its transparent condition, which means having phase-stability. In contrast, the microemulsion of the comparative preparation samples was destroyed to cause phase separation (see Test 1; Tables 4 to 6).

In addition, the present inventors tested the dilution stability of the microemulsion composition of the present invention after diluting the composition with water at concentration of 0.1%, 0.4% and 1%. As a result, the dilution solutions of the present invention maintained the microemulsion phases after 24 hours without any phase destruction (see Test 2; Tables 7 and 8).

Moreover, because the microemulsion composition of the present invention comprises only water and water soluble solvent, it is safer in terms of toxicity, compared with the emulsion concentrate composition of Vogt which comprises water insoluble solvents.

Since the use of water in the present invention produces the unexpected superior effects as above, claims 21 and 22 should be recognized to be non-obvious over Vogt.

The Examiner has also rejected claims 6 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Vogt as applied to claim 1 above in view of Flahive (U.S. Patent 5,965,487). Further, the Examiner has rejected claim 11 under 35 U.S.C. § 103(a) as being unpatanble over

Vogt as applied to claims 1, 9 and 10 above in view of Flahive (U.S. Patent 5965487). Applicants respectfully traverse these rejections.

Flahive teaches an herbicidal composition comprising sodium di-2-ethylhexyl sulfosuccinate as an emulsifier and/or propylene glycol as a solvent. However, the present invention relates to a fungicidal composition, whereas the composition of Flahive is an herbicidal composition. A skilled artisan in the fungicidal field would not consider a herbicidal composition since the active ingredient, additive, content, target, purpose of use of the two compositions are quite different. Therefore, a skilled artisan would not refer to Flahive.

In addition, since Vogt teach away from the present invention (e.g., since Vogt describe that the composition is substantially free of water), a simple combination of Vogt with Flahive would certainly not lead to the present invention. The combination of Vogt with Flahive merely leads to an emulsion concentrate composition which is substantially free of water.

Therefore, claims 6, 8 and 11 should be recognized to be non-obvious over Vogt even in view of Flahive.

In view of the above Applicants respectfully submit that the present claims define patentable subject matter. The Examiner is thus respectfully requested to withdraw all rejections and allow the currently pending claims.

If the Examiner has any questions or comments, please contact Craig A. McRobbie, Reg. No. 42,874 at the office of Birch, Stewart, Kolasch and Birch, LLP at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

By 

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